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**Water swivel**

**VP-60R1**

### VP-60R1 WATER SWIVEL

VP-60R1 Water swivel serve as coupling link between block & tackle system and intervention tools, which is tap to rotating swivel stem.

Water swivel ensures the turning of the tool and the flushing fluid supply through hose connection into the pipe column to the bottom of the well.

The place of installation of the swivel is on the lifting bail on block & tackle system.



fig. 1

#### Technical specifications of VP-60R1 water swivel

Parameter name	VP-60R1-01	VP-60R1-02
Maximum load on the stem, kN (tf)	600 (60)	600 (60)
Maximum pressure of the pumped liquid, PSI (atm)	2351 (160)	2351 (160)
Operating ambient temperature, °C	-40 ... +45	-40 ... +45
Diameters of stem pass, d <sub>s</sub> , max	1 $\frac{59}{64}$ " / 49 mm	1 $\frac{59}{64}$ " / 49 mm
Diameters of outlet pass, d <sub>o</sub> , max	1 $\frac{31}{32}$ " / 50 mm	2 $\frac{23}{64}$ " / 60 mm
Stem connection dimensions, D, tubing thread API Spec 5B	NUE 2 $\frac{7}{8}$ "	NUE 2 $\frac{7}{8}$ "
Outlet connection dimensions, d, tubing thread API Spec 5B	NUE 2 $\frac{3}{8}$ "	NUE 2 $\frac{1}{2}$ "
Overall dimensions, LxWxH, mm, max:	740x250x126	740x286x126
Weight, max:	59.53 lbs / 27 kg	61.73 lbs / 28 kg

Parts material: steel AISI 5140 with special heat treatment, yield strength 650 MPa.

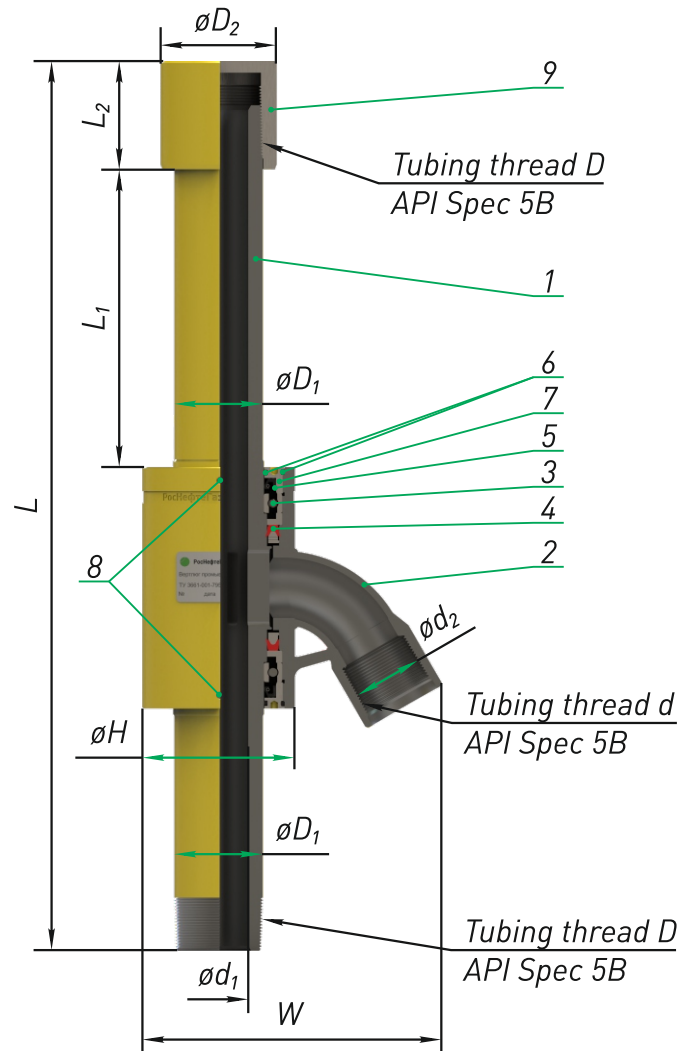


fig. 2

Water swivel (fig.2) consist of stem (pos. 1) and body (pos. 2). The swivel body contains two ball bearings (pos. 3), ensuring free rotation of the stem. The inner bag of the body in the top and bottom parts is waterproof against circulating fluid invasion by U-caps (pos. 4) and from dust and dirty by oil seals (pos. 5) and o-rings (pos. 6) installed in the roof (pos. 7). The roof (pos. 7) enclosed to plug by blunt bolts (pos.8).

During work, the swivel body is under the influence of the mass of the casing wash down hose, and the mass of the washpipes have an effect on the swivel stem.

A cap (pos. 9) is screwed onto the upper end of the stem, under which a pipe elevator is attached.

At the customer's request, a swivel sub with the required tubing thread, drill pipe thread or tool-joint thread can be screwed onto the swivel stem.

**Additional sizes:**

Typesize	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>
VP-60R1-01	73	96	240	90
VP-60R1-02	73	96	240	90

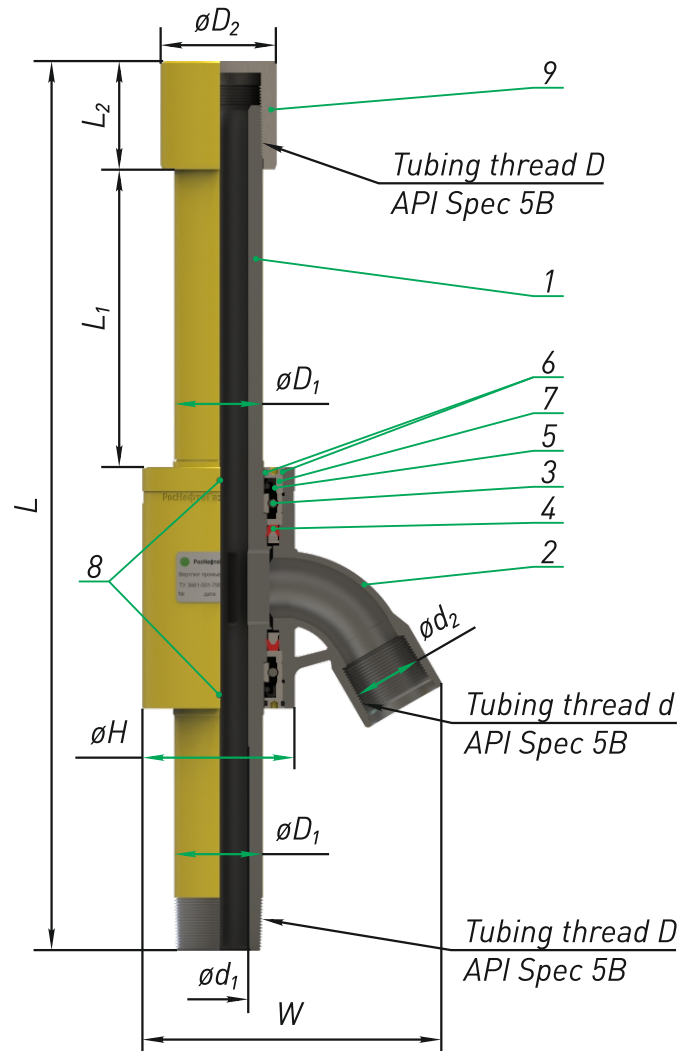


fig. 2

**Spare tools and accessories kit:**

Name	Standard set	More*
1) Oil seal 1.1-75x95-2 GOST 8752-79 (pos.5)	2 pcs	
2) VP-60-16R1.00.05 U-Cup (pos.4)	2 pcs	
3) VP-60-16R1.04.00 Key.	1 pc	
4) O-Rings GOST 9833-73/GOST 18829-73:		
- 102-108-36-2-2. (pos.6)	2 pcs	
- 075-081-36-2-2. (pos.6)	2 pcs	
- 062-070-46-2-2. (to hammer union 2")	-	
5) Key 7812-0372 C6 GOST 11737-93.	1 pc	
6) Ball bearing 1000915 GOST 8338-75. (pos.3)	-	

\* At the request of the consumer, it is possible to supply an extended set of spare parts. The specified quantity will be supplied in addition to the standard set.

Documents:

Operation manual - 1 pc;  
Certificate of conformity - 1 pc.

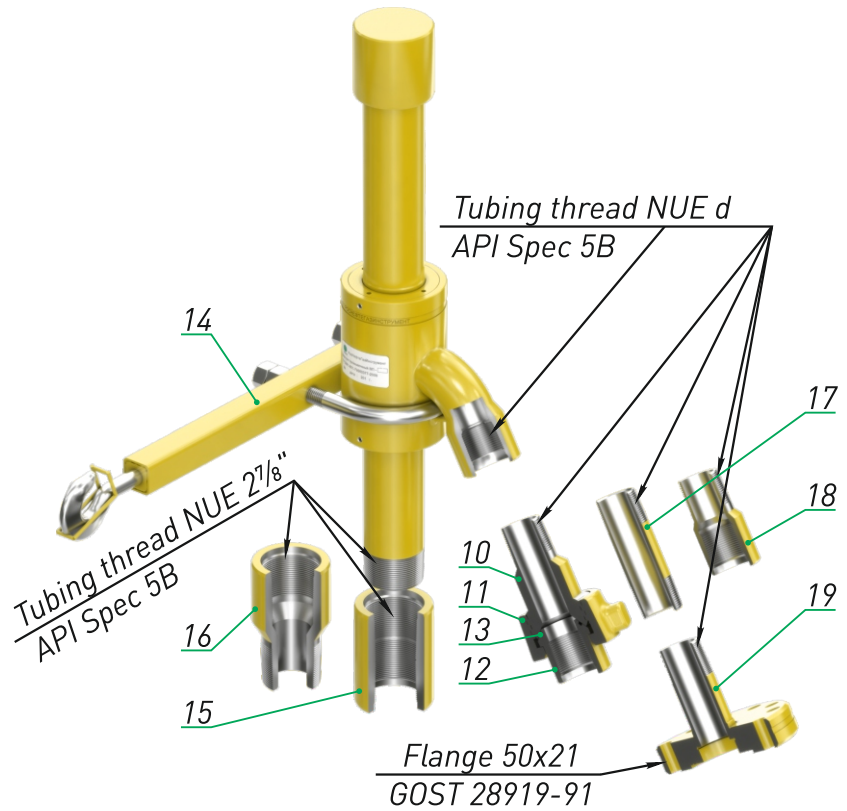


fig. 3

**Complementary options (select what you need):**

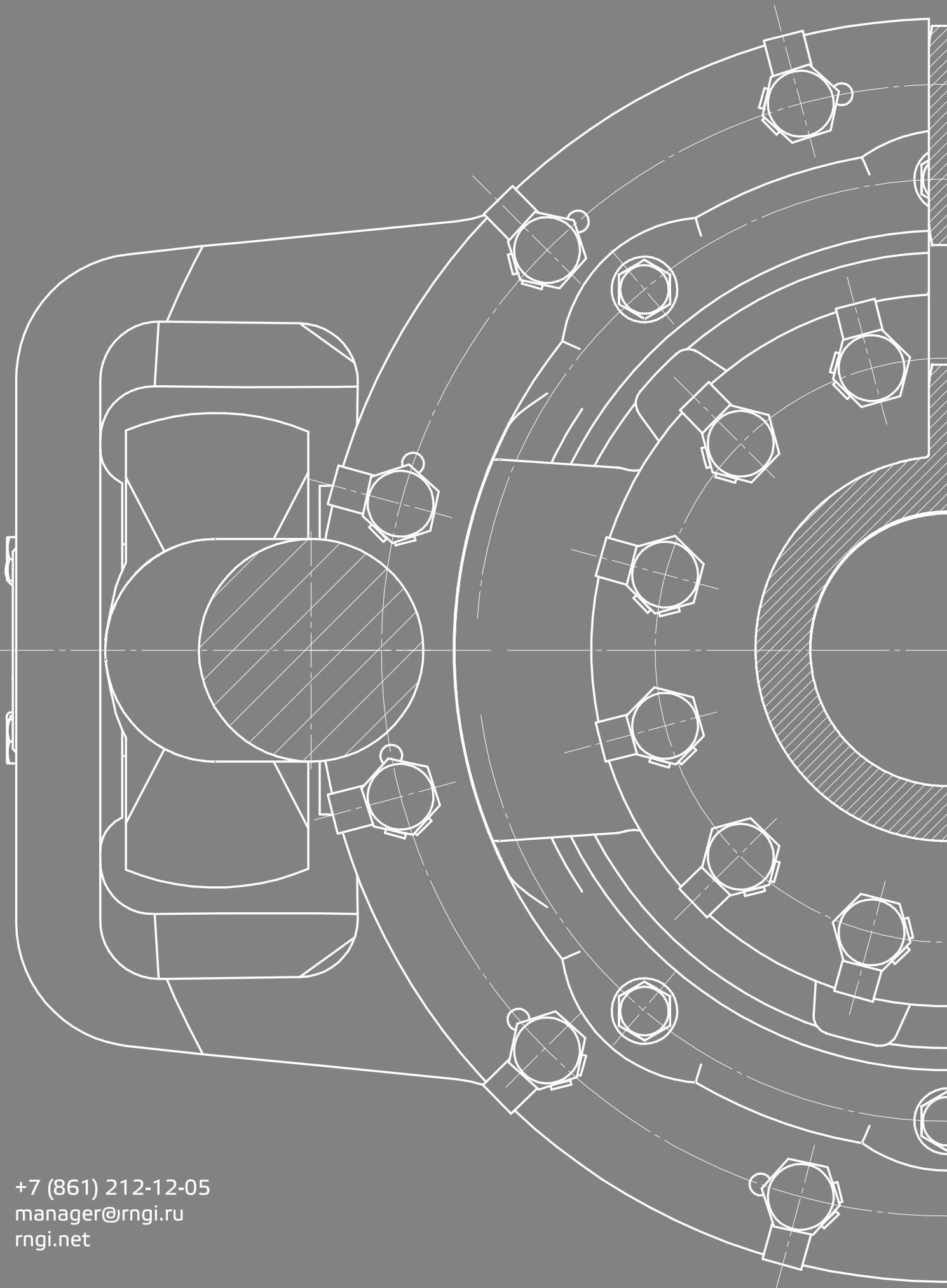
Option name	Product code	Position (Fig. 3)	Include in the package
Female sub 2"	VP-60-R1.00.08	10	<input type="checkbox"/>
Nut 2"	SB-60-70.03	11	<input type="checkbox"/>
Male sub 2"	SB-60-70.01	12	<input type="checkbox"/>
O-Ring GOST 9833-73/GOST 18829-73*	062-070-46-2-2	13	<input type="checkbox"/>
Removable guy to compensate for the resulting reactive moment		14	<input type="checkbox"/>
Maximum pressure of the pumped liquid, PSI (atm.) – 2645 (180)			<input type="checkbox"/>
Maximum pressure of the pumped liquid, PSI (atm.) – 3086 (210)			<input type="checkbox"/>
Maximum pressure of the pumped liquid, PSI (atm.) – 3674 (250)			<input type="checkbox"/>
Maximum pressure of the pumped liquid, PSI (atm.) – 5144 (350)			<input type="checkbox"/>
Maximum pressure of the pumped liquid, PSI (atm.) – 10287 (700)			<input type="checkbox"/>
Parts material: steel AISI 420 with special heat treatment Processing medium: drilling mud containing H <sub>2</sub> S, CO <sub>2</sub> , CaCl <sub>2</sub> , NaCl, KCl, HCl; plus the execution of K2 and K3			<input type="checkbox"/>

\* One O-ring is supplied on the product and one O-ring is included in the spare parts kit.

**Subs (select what you need):**

Option name	n - required size	Position (Fig. 3)	Include in the package	
Sub	Stem*	Box NUE 2 7/8" x Box NUE n	15	<input type="checkbox"/>
		Box NUE 2 7/8" x Pin NUE n	16	<input type="checkbox"/>
	Outlet	Pin NUE d x Pin NUE n	17	<input type="checkbox"/>
		Pin NUE d x Box NUE n	18	<input type="checkbox"/>
		Pin NUE d x Flange 50x21 GOST 28919-91	19	<input type="checkbox"/>

\* It is possible to change the lifting capacity of the swivel from the selected thread on the sub.



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